

Forest Products

The first regulated timber harvest on the national forests in the U.S. took place on the Black Hills National Forest. Why was it located in the Black Hills of South Dakota? The answer is at least partially answered in letters that Gifford Pinchot received from his mentor Sir Deitrich Brandis. A March 27, 1897 letter ends "Of all the Reserves set apart by Cleveland's proclamation, the Black Hills Forest in Dakota and Wyoming seems to be the most suitable to make a beginning of regular management. Would it not be possible to get a scheme passed for the administration of these 968,000 acres as a beginning? I am strongly in favor of steady progress from small beginnings." In a July 8, 1897 letter Brandis further suggests that "Apparently there is a certain demand for the mining and agricultural population in the vicinity. The forests therefore may be profitably worked at once." The following article offers a historical context to the first timber sale under the 1897 Organic Administration Act.

TIMBER USERS, TIMBER SAVERS

HOMESTAKE MINING COMPANY AND THE

FIRST REGULATED TIMBER HARVEST

by Richmond L. Clow

The Progressive Era (1900-1916) has emerged as a period crucial to the success of the success of the late nineteenth century conservation crusade. During this optimistic era of social reform, with its faith in technology and efficiency, demands for a halt to the destruction and waste of the nation's natural resources became established federal policy.

Many studies have examined the varied themes of the conservation movement, from the aesthetic importance of the environment to the fear that the depletion of resources, such as timber, threatened the very existence of American society. These studies have most often defined the users of resources as the despoilers of the environment. Such an approach, however, ignores the role of industry in conservation.

An illustration of the importance of resource users to the conservation story can be found in the Black Hills of South Dakota, where the Homestake Mining Company has been the largest consumer of trees from the region's public lands. The company's logging operations passed through three phases corresponding to changes in popular attitude and national policy regarding resource conservation. From just after the beginning of the Black Hills gold rush in 1876 until the creation of the Black Hills Forest Reserve in 1897, Homestake loggers destroyed large portions of the forest with the aid of legislation that encountered the unlimited use of the nation's apparently inexhaustible timber resources. With the beginning of the shift in federal policy toward conservation and the advent of the forest reserve, the company initiated fraudulent mining claims to keep on cutting trees from the restricted land. Finally, once the leadership of Homestake understood the Progressive foundation of the movement to save resources and

realized that conservation was in its best long-term interest (largely through the efforts of Gifford Pinchot), the mining company not only accepted forest conservation but also played an active role in shaping modern forestry. Embracing the new conservation policy, Homestake initiated Timber Case No. 1, the first regulated timber harvest from a public forest reserve.

An important relationship existed between nineteenth-century goldmining and lumbering. Trees provided cordwood for fuel, saw boards for building construction, and shoring for mine tunnels, all of which were essential to the recovery of gold. Thus, the commercial exploitation of the Black Hills forest had begun with the gold rush of 1876. In that year, entrepreneurs shipped several small sawmills to the Black Hills to supply rough boards for the fledgling gold mining industry as well as local building construction. Congress helped western mining operations obtain lumber by passing the Free Timber Act of 1878, authorizing miners to take for mining purposes "any timber or trees growing or being on the public [mineral lands]... subject to such rules and regulations as the Secretary of the Interior may prescribe for the protection of the timber." The secretary's office established regulations prohibiting the cutting of any tree less than eight inches in diameter and requiring that brush and treetops be disposed of in a manner that would prevent the spread of forest fires. Largely unenforced, these regulations did nothing to halt the quick destruction of the yellow, or ponderosa, pine forests of the Black Hills. Together, town builders and miners logged billion and a half board feet from 1876 until 1898.

Accessible and well-timbered, the mountains permitted easy exploitation, a fact that was not lost on miners. Henry M. Chance, mining engineer who had traveled the region, wrote in 1891 that large tracts of the pine forest in the northern Black Hills had "been cut on a large scale for use at the Homestake and other mines... [because the trees are] of inestimable value in the development of their mineral resources, furnishing a good, cheap mine-timber." The southern Hills, which offered limited mining opportunities and therefore retained its trees, presented a much different landscape. "It is impossible," Chance observed, "to travel through the Black Hills, especially through their southern portion, without being charmed by the beauty of the country."

In the first years of logging, when timber was plentiful, only the best trees were taken. When timber became scarce and the second cutting began, lumbermen took the remaining trees, leaving large clear-cut areas. Often, only fifty percent of each tree was used and the rest discarded as waste. Competition between mining companies contributed to the squandering of timber; lumbermen sometimes cut logs only to prevent another mining company from getting them. Surplus logs often rotted at mining operations that had been abandoned. Henry S. Graves, a professional forester, noted that in the northern Hills, the center of the region's mining industry, timber was "almost entirely cut within a radius of 8 miles from Deadwood," leaving the hillsides barren of trees.

While these wasteful lumbering practices altered the Black Hills landscape, logging was not solely responsible for transforming the environment. Periodic natural fires also thinned the yellow pine. As a result, the forest covering the Black Hills was not extremely dense, and miners did not set fires to clear the land in order to conduct prospecting activities as they did in many parts of the Rocky Mountains. Instead, train engines throwing sparks and burning saw dust piles at local lumber mills were the main causes of man-made forest fires in the Black Hills. In the early years, once a fire started, it often burned uncontrolled for weeks because no fire-protection program existed.

Many individuals and corporations shared responsibility for depleting the Black Hills yellow pine between 1875 and 1890, but as the largest consumer of the region's timber, Homestake Mining Company was the most visible violator of the few regulations that governed the cutting of trees on public lands. The company constructed its own narrow-gauge railroad in 1881 to haul timber to Lead, the location of its gold-milling operation. Named the Black Hills & Fort Pierre, it eventually extended to the small community of Piedmont on the east-central edge of the Hills. In addition to the railroad, the company operated lumbering camps throughout the northern Black Hills where loggers converted free trees into the cordwood building materials, and mine timbers essential to Homestake's profitable gold operation.

Eventually, Homestake's lumbering practices brought the company to court because its loggers violated the secretary of interior's regulation forbidding the cutting from public lands of trees under eight inches in diameter. The United States attorney filed charges against the company in 1894, claiming that it had illegally cut 6,828,160 trees from public land and seeking \$688,804 in damages plus interest. Attorneys for the plaintiffs asked to move the trial from Deadwood to Sioux Falls, in the eastern part of the state. They cited the impossibility of obtaining a fair trial in the Black Hills, where a large number of the residents had themselves engaged in unlawfully cutting timber at one time or another. The attempt to move the trial failed, and the case was heard in Deadwood. Four years later, Judge John Carland ruled that the Homestake Mining Company had to pay \$75,000 in damages - a small penalty when one considers the value of the timber. Investigators for the General Land Office, who administered the national forests at the time, estimated the value of lumber that the company had taken illegally at between two and three million dollars. This early timber-cutting case served only as a prelude to further government intervention as the conservation movement gathered momentum during the Progressive Era.

In 1896, the Secretary of the Interior Hoke Smith requested the National Academy of Sciences to prepare a report outlining a "rational forest policy" for the United States. Wolcott Gibbs, president of the academy, appointed a National Forestry Commission and directed that group to locate sites for future forest reserves on the public timber lands and recommend that the United States assume a stronger administrative posture over the proposed reserves.

Several members of the National Forestry Commission visited the Black Hills and other public lands throughout the West in the summer of 1896. Later the full commission reported, "It is evident that without Government protection these forests [of the Black Hills], so far as their productive capacity is concerned, will disappear at the end of a few years, and... their destruction will entail serious injury and loss to the agricultural and mining population of western North and South Dakota." President Grover Cleveland followed part of the commission's recommendations and on 22 February 1897 created thirteen new forest reserves. Among them was the Black Hills Forest Reserve, which consisted of 957,680 acres of timbered lands. Because no provisions for the regulated cutting of timber on the restricted land accompanied Cleveland's order, his proclamation in effect removed from public use all land and timber within the Black Hills reserve and the twelve other reserves created under the measure.

Black Hills residents openly opposed the reserve and wanted Cleveland's proclamation reversed, fearing that it would disrupt both the local mining industry and the region's general economy. In addition, the local populace believed that the existence of the reserve denied individuals their rights to use the public lands in fulfillment of the American dream. The Homestake Mining Company, a model of industrial success and one of North America's largest mining operations, also opposed the creation of the reserve. Cleveland's order would stop Homestake from cutting free lumber.

The omission of any provisions for the regulated use of the new reserves created a storm of protest across the West. In the face of pressure to abolish the reserve system altogether, Congress passed the Organic Administration Act of June 1897, assuring lumber consumers currently logging on public lands that the newly created reserves would continue to supply timber for their future needs. The legislation authorized the creation of forest reserves not only to improve and protect timber resources and water flow but also "to furnish a continuous supply of timber for the use and necessities of citizens."

The law empowered the secretary of the interior to draft regulations under which local domestic and industrial consumers, including mining, lumbering, and grazing interests, could use the forest. Congress authorized the Secretary of the Interior to sell the dead or mature trees found within the reserve. The General Land Office would advertise the event, make the trees for sale, and supervise the harvest. Anyone who illegally cut or destroyed timber inside a reserve would receive a maximum fine of five hundred dollars or twelve months in prison or both. In short, government supervision replaced the logger's choice. Instead of allowing indiscriminate cutting,

government officials selected timber for harvest.

Unfortunately, the solution was not going to be that simple. Gifford Pinchot, visiting the Black Hills in the fall of 1897 as special forest agent for Secretary of the Interior Cornelius N. Bliss, described the landscape between Deadwood and Englewood in the northern Hills as a cutover and burned forest. In Bear Gulch near Spearfish, however, he discovered "a beautiful and vigorous forest, of great potential value. But it is now full of locations for mining claims, which appear on the trees... [The] common report in the Hills ascribes these claims to men working for the Homestake." These fraudulent mining claims, which failed to display the requisite "discovery holes," had been filed to circumvent the new cutting restrictions.

In an attempt to curtail this practice without alienating company officials, Gifford Pinchot, working for Secretary Bliss, presented Homestake Mining Company superintendent Thomas J. Grier and company attorney Gideon C. Moody with a regulated harvest plan on 3 November 1897. This opportunity was Pinchot's chance to advance scientific forest management through winning the support of a large gold-mining operation that was also a large timber user. During a three-hour meeting, he convinced Homestake to send an application to the secretary of the interior asking permission to purchase timber from the United States at a minimal cost under the terms of the 1897 Act, even though it did not officially begin until 1 March 1898. Upon approval of the application, the company could legally cut trees on the reserve instead of obtaining lumber through fraudulent means. Grier and Moody informed Pinchot that they supported, in principle, the concept of the forest reserve and that the company would also help to fight forest fires. Homestake even offered to fund a government mechanism for selling timber, since none existed at the time. Once company officials understood Pinchot's concept of conservation, they had endorsed his plan. Neither litigation nor the threat of penalties had swayed Homestake in the past. Rather, the company came to support conservation because it ensured continual use of the public forests at minimal cost. In short, conservation was in the company's best interest.

From this discussion between Pinchot and Homestake management arose Timber Case No. 1, the first government-regulated timber cut on a public forest reserve and the beginning of modern regulated forestry practices in the United States. Important for Pinchot personally was the fact that his scientific forestry methods were on trial. The Timber Case No. 1 experiment involved the Homestake Mining Company purchasing standing trees on the Black Hills Forest Reserve and then cutting those trees under the supervision of a government forester. As Pinchot noted in a later report, "There is no other forest in the United States in which practical forestry is more urgently needed, or in results of such importance may be more easily achieved."

In early February 1898, Homestake Mining Company began to formulate its proposal for cutting trees on the Black Hills reserve based on Pinchot's principles of forest management. Homestake superintendent Thomas Grier took the next step toward putting the company's logging operation under government regulation when he relinquished the fraudulent mining claims that Homestake had filed in the Black Hills reserve. On 8 April 1898, Grier submitted the company's formal application for the cutting of timber in the reserve to the secretary of the interior. The application described the size and number of trees to be logged, the location of the cut (eight sections of land along the tracks of the company railroad about four miles southwest of Nemo in the east-central Black Hills), and the amount of timber to be taken annually (measured in both linear and board feet).

Unfortunately, the Department of the Interior's General Land Office, which was charged with overseeing all timber operations, had no experience in regulating timber harvest. This situation created undue delay and hardship for Homestake. The General Land Office dispatched Special Agent C.W. Greene in early May 1898 to report on the condition of the trees in the proposed cut area. Not until August of 1898, however, did the land office appoint a supervisor, H.G. Hamaker, for the Black Hills Forest Reserve and instruct him to investigate the area. The agency's acting commissioner ordered Hamaker to "bear in mind the forest reservation policy of this office to supply present and future needs for timber within the state by providing for the reservation." The commissioner further informed Hamaker not to overvalue the lumber because the government was not interested in deriving "a revenue therefrom, but to meet local demand... for legitimate

puroposes of trade." The minimum price was placed at one dollar per thousand board feet. Hamaker's duties also included supervising the disposal of treetops and other waste and insuring that only mature trees were cut without stripping the forest of all future seed trees.

Hamaker surveyed Homestake's proposed logging area in the fall of 1898 and suggested that the mining company be permitted to cut only on the burned areas of the Black Hills reserve. The General Land Office forest supervisor, C.W. Garbutt, dismissed that proposal, probably because Homestake protested. The company cited the high cost of selectively logging dead trees and maintained that dead lumber was not strong enough for mining purposes. R.O. Robinson, head of Homestake's lumber operation, informed Hamaker, "In our timber business... we will be unable to make use of anything but the saw timber and the timber that will make... 11 and 6 in flatts [the large timbers used underground]." In addition, the company was converting to coal at the time the reserve was created and claimed it had no use for cordwood. Robinson stated that the company would cut it and dispose of the treetops but only because the law so required.

Hamaker submitted his first written report on the pending timber cut in late April 1899, and it reflected Homestake's position on cordwood. His superior, William A. Richards of the General Land Office, ordered Hamakerto resubmit the report, demanding that Homestake pay for the cut cordwood even though the company claimed that it would not be used because of declining need. In his amended report, Hamaker noted that he wanted "the Government to get full pay for all timber sold from this reserve," but that Homestake still refused to pay for cordwood and would instead pile it with the brush rather than haul it from the logging area. Concerned with making the reserve defray the operating expenses, Hamaker wrote that he would make the company "pay for every cord they cut." Eventually, Homestake purchased the cordwood.

In making his amended report, Hamaker created another delay when he suggested that the proposed cut be open to bidders, permitting other lumber users an opportunity to get the timber sale and soliciting bids even though it was obvious that the cut would go to the Homestake. The area was the same one the company had made application for in April 1898 and was near their railroad line.

In October 1899, Homestake officials submitted their bid at the original price of one dollar per thousand board feet for all the timber in the proposed Nemo cut. Because of a serious wood shortage at the Lead stamp mills, the company had asked permission to begin cutting on reserve land in September 1899. That request was denied. Homestake would be able to cut trees sixty days after the end of the advertising date, but that prospect was subject to change of a higher bid came from another operator. Predictably, however, the General Land Office awarded the bid to Homestake, and the company deposited over five thousand dollars with the receiver of the General Land Office in Rapid City for the timber to be logged near Nemo. Thus, more than a year and a half after Homestake submitted its application to cut timber in the Black Hills Forest Reserve, Timber Case No. 1 was finally under way. The experiment in refined, regulated logging in the Black Hills had begun, and the rest of the nation's lumber users watched.

On 5 November 1899, General Land Office forest superintendent C.W. Garbutt directed J.F. Clark, the land office forest ranger at Englewood, to mark trees eight inches in diameter and larger for cutting. In addition, Garbutt ordered Clark to inform Homestake loggers that the company could not remove any logs until the ranger had measured the timber to ensure that trees suitable for sawing into large-dimension mine timbers would not be used for cordwood. Further, the Homestake loggers were to stack treetops and other waste into piles for burning.

Supervisor's instructions did not translate into working practices, however. The new forest managers were perplexed when it came to the problem of disposing of the dead and down timber that was found throughout the Hills. Homestake officials claimed that the price the government charged for lumber should not include "dead and down" or "dead and standing" timber because it was worthless for mining purposes. After visiting the Nemo cut, land office inspector C.W. Greene agreed that most of the dead timber was worthless and the prices charged were too high. He maintained, however, that the rate of one dollar per one thousand board feet of green pine was fair. While at the logging site, Greene noticed another problem;

thick windfalls, which he feared would burn and destroy the live timber. In order to protect the forest from potential fires, Greene recommended that Homestake receive the dead timber free for taking it out of the logging site. Forest Superintendent Garbutt disagreed, contending that fifteen cents a cord for dead-and-down and fifty cents a cord for dead-and-standing timber was incentive enough to encourage Homestake to take the dead timber. Garbutt's view prevailed, and the company lost the free dead timber issue.

After numerous requests for extensions, Homestake Mining Company completed Timber Case No. 1 in 1908. Under the contract, Homestake cut nearly fifteen million board feet of lumber and fifty-one hundred cords of wood. On average, the number of seed trees left standing after the company completed logging Case No. 1 was just two per acre, or 482 board feet of timber; by comparison, the Forest Service required 2,611 board feet per acre for seed purposes following a 1937 Black Hills harvest.

Even though it could not be cited as a model of modern forestry practices, Timber Case No. 1 inaugurated an era of government regulation over tree harvests on the public lands that was essential to the conservation of the resource. Homestake, the company of waste during times of free timber, became a company of frugality. In fact, the fear of a timber shortage in the Black Hills and the threat of having to purchase higher-priced imported lumber made local mining companies even more possessive and protective of the region's timber. Shortly after the creation of the Black Hills reserve, the local mining industry secured an embargo prohibiting the shipment of green cut timber from the national forest out of South Dakota. The embargo ended in 1912, the year Homestake completed its conversion to electricity.

The mining companies of the Progressive Era have been described as anticonservationist because they opposed the establishment of forest reserves. The Homestake experience reveals another facet of both the industry and the conservation movement. Company officials worked with Gifford Pinchot to turn conservation into an economic asset. In fact, that alliance was relatively easy to accomplish because the Black Hills Forest Reserve had been created essentially to enhance economic interests through the efficient management of limited resources. Thoughtless timber practices had the same effect on the company's lumber supply as closing the forest to all logging; without free lumber, mining costs increased and the stockholders received smaller dividends. Company management, once they understood the intent of the 1897 Black Hills Forest Reserve, supported the concept of a forest reserve and the conservation of timber resources through government regulation and efficient planning.

Lost forever in the process of establishing the forestry theories behind Timber Case No. 1 was the possibility of maintaining the Black Hills forest untouched wilderness. Conservation, not preservation, was the hallmark of the Progressive Era. Both Homestake Mining Company officials and the men trained in forestry practices advocated resource conservation for the same end - enhancing the local economy. That alliance, which became the backbone of the nation's modern conservation era, began in the Black Hills. Instead of fighting the inevitable regulation imposed on the public forests, Homestake played an integral and understandably self-serving role in supporting modern forestry practices.